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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,946	02/06/2001	Hideo Kawahara	1232-4680	3252
27123	7590	01/27/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			VIEAUX, GARY	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/777,946

Applicant(s)

KAWAHARA, HIDEO

Examiner

Gary C. Vieaux

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) 33, 34, 37 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Amendment

The Amendment filed on September 9, 2004 has been received and made of
5 record. In response to the first office action, the drawings and claims 1, 12, 21, and 22
have been amended. Claims 2-9, 13-18, and 23-26 have been cancelled. Claims 27-
38 have been added by Applicant.

Response to Arguments and Amendments

10

Drawings

The Examiner finds the amendments to figures 2 and 3 to properly designate the
drawings as Prior Art, because they illustrate only that which is old. Therefore, the
objections to the drawings are hereby withdrawn.

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Claim Objections

Claim 22 is objected to because of the following informalities: claim 22, line 11
includes the word degree misspelled as "degeree". Appropriate correction is required.

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Election by Original Presentation

Newly submitted claims 33, 34, 37 and 38 are directed to an invention that is
independent or distinct from the invention originally claimed for the following reasons:

Claims 33, 34, 37 and 38 pertain to controlling illumination based on the subtraction of an image signal obtained before a pre-flash operation from an image signal obtained in a pre-flash operation, which when taken in light of the claims as a whole, forms an invention which is patentably distinct from that of the previously presented claims.

5 Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 33, 34, 37 and 38 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

10

Claim Rejections

Applicant's arguments filed on September 9, 2004 have been fully considered but they are not persuasive.

15 Regarding Applicant's Remarks in relation to the 102(e) rejection to claim 1, Steinberg is found to teach an apparatus comprising (A) a photometric unit for receiving object light and converting the object light into luminance signals of a plurality of areas (col. 5 lines 10-15), and (B) a control unit for calculating a histogram of a luminance distribution on the basis of the luminance signals of the plurality of areas converted by said photometric unit (col. 5 lines 33-37), wherein when a rate that a predetermined
20 luminosity level occupies exceeds a reference point in a pattern of the calculated histogram, said control unit controls an operation of an illumination device on the basis of luminance signals obtained by excluding luminance signals of predetermined

luminance levels from the luminance signals (col. 10 lines 11-14.) For the purposes of claim interpretation, the Examiner finds the evaluation of region 3 within preset upper and lower limits, as found in the prior art, to be luminance signals obtained by excluding the luminance signals of the predetermined luminance levels from the luminance

5 signals, as claimed the instant application.

The Applicant, on lines 6-7 of page 9 of the Response, submits that Steinberg does not teach or fairly suggest the elements recited in currently amended independent claim 1. Based on the preceding rejection, the Examiner respectfully disagrees.

The Applicant, on lines 18-20 of page 9 of the Response, further submits that
10 Steinberg does not teach or fairly suggest a specified area that is selected or excluded from plural areas on the basis of a distribution of a specified component in a histogram that is generated from an image signal. However, currently amended independent claim 1 is not found to recite limitations regarding the controlling of light emission operation on the basis of a luminance signal in a selected area of an image frame, and
15 therefore further discussion is rendered moot.

Finally, on lines 3-7 of page 10 of the Response, Applicant contends that claims directly or indirectly dependent from claim 1, as well as claims 12, 21, and 22, and the newly claims are patentable from the cited references for at least a similar reason. For the above stated reasons, the Examiner respectfully disagrees and stands behind the
20 rejections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- 5 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 10

Claims 1, 10-12, 19, 20, 31, 32, 35 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Steinberg et al. (US #6,151,073.)

- 15 Regarding claim 1, Steinberg teaches an apparatus comprising (A) a photometric unit for receiving object light and converting the object light into luminance signals of a plurality of areas (col. 5 lines 10-15), and (B) a control unit for calculating a histogram of a luminance distribution on the basis of the luminance signals of the plurality of areas converted by said photometric unit (col. 5 lines 33-37), wherein when a rate that a
- 20 predetermined luminosity level occupies exceeds a reference point in a pattern of the calculated histogram, said control unit controls an operation of an illumination device on the basis of luminance signals obtained by excluding luminance signals of predetermined luminance levels from the luminance signals (col. 10 lines 11-14.) For the purposes of claim interpretation, the Examiner finds the evaluation of region 3 within
- 25 preset upper and lower limits, as found in the prior art, to be luminance signals obtained by excluding the luminance signals of the predetermined luminance levels from the luminance signals, as claimed the instant application.

Regarding claim 10, Steinberg is found to teach all of the limitations of claim 10 (see the 102(e) rejection to claim 1 supra), including wherein said apparatus includes an image sensing apparatus (col. 6 lines 59-61.)

Regarding claim 11, Steinberg is found to teach all of the limitations of claim 11 (see the 102(e) rejection to claim 1 supra), including wherein said apparatus includes a camera (col. 2 lines 29-30.)

Regarding claims 12, 21 and 22, although the wording is different, the material is considered substantively equivalent to claim 1, as discussed above.

Regarding claims 19 and 20, although the wording is different, the material is considered substantively equivalent to claims 10 and 11, respectively, as discussed above.

Regarding claim 31, Steinberg teaches an apparatus comprising (A) a photometric unit for receiving object light and converting the object light into luminance signals of a plurality of areas (col. 5 lines 10-15), and (B) a control unit for calculating a histogram of a luminance distribution on the basis of the luminance signals of the plurality of areas converted by said photometric unit (col. 5 lines 33-37), wherein said control unit selects an area to be valid from the plurality of areas on the basis of a pattern of the histogram and controls an operation of an illumination device on the basis of a signal of the selected area (col. 10 lines 11-14.)

Regarding claims 32, 35, and 36, although the wording is different, the material is considered substantively equivalent to claim 31, as discussed above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

5 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10 **Claims 27-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg et al. (US #6,151,073) in view of Heard (US #4,671,655.)

Regarding claim 27, Steinberg teaches all the limitations of claim 27 (see the 102(e) rejection to claim 1 supra) except teaching wherein the histogram is generated on the basis of signal levels of red signal, blue signal and green signal that are obtained
15 by decomposing a sensed image signal.

One of ordinary skill in the art of illumination control, when faced with the problem of achieving proper exposure by means of histogram information, would look to the solutions of others faced with similar problems. One such solution is presented by Heard. Heard teaches generation of a histogram on the basis of signal levels of red
20 signal, blue signal and green signal that are obtained by decomposing a sensed image signal (col. 2 lines 58-64.) It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the color based histogram as taught by Heard, with the apparatus as taught by Steinberg, in order to effect appropriate illumination by increasing information employed in the decision process, i.e., using the three luminance
25 signals relating to the colors to be imaged, instead of merely using a single luminance input measurement.

Regarding claims 28, 29 and 30, although the wording is different, the material is considered substantively equivalent to that of claim 27, with deference given to the particular dependence derived from claims 12, 21 and 22, respectively, as discussed above.

5

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 703-305-9573. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

5 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for
10 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Gcv2

Gary C. Vieaux
Examiner
Art Unit 2612


TUAN HO
PRIMARY EXAMINER